



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,857	03/23/2001	Roger Lacasse	01393-P0047A	5808
22904	7590	10/22/2003	EXAMINER	
LOCKE LIDDELL & SAPP LLP			OCAMPO, MARIANNE S	
600 TRAVIS				
3400 CHASE TOWER			ART UNIT	
HOUSTON, TX 77002-3095			PAPER NUMBER	
			1723	

DATE MAILED: 10/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

12

Office Action Summary	Application No. 09/815,857	Applicant(s) LACASSE ET AL.	
	Examiner Marianne S. Ocampo	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,4,6-13,18,20-22 and 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 3,4,6-10,13,18,20-22 and 24 is/are allowed.
- 6) ☒ Claim(s) 11,12 and 25-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4-15-03 has been entered.

Previously Indicated Allowable Subject Matter

2. The indicated allowability of claims 25 - 27 is withdrawn in view of the amendments filed on 4-15-03 and the newly discovered references to Parker (US 3,515,280) and von Nordenskjöld (US 4,448,689), in combination with previously presented prior art, Cordua (US 4,402,829). Rejections based on the newly cited references follow.

Foreign Priority

3. Receipt is acknowledged of papers (certified copy of foreign document CA 2,301,992 filed on 3-23-2000 in Canada) submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

4. Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, **a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.**

Specification

5. The abstract of the disclosure is objected to because it used legal phraseology such as "mounting means" in line 8 of the abstract. Correction is required. See MPEP § 608.01(b) and below.

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Objections

7. Claim 21 is objected to because of the following informalities: the word "unit" in the last line should be changed to "units". Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 25 - 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cordua (US 4,402,829) in view of von Nordenskjöld (US 4,448,689).

10. Concerning claim 25, the limitation “filter units” in the last line of the claim, is unclear, whether there is more than one filter unit in the housing, or it is a typographical error. The examiner has considered a typographical error, and that the word “units” should have been written as “unit”. Cordua discloses a prefilter comprising:

- a filter housing (12, 14) having an inlet (18) in a bottom portion thereof for receiving an inflow of liquid to be filtered and an outlet (22) in a top portion thereof for discharging an outflow of filtered liquid;
- a filter unit (24, 26) mounted vertically in the filter housing (12) comprising:
 - superposed and spaced-apart inclined lamellar structures (26, 24) having the shape of hollow truncated structures, each having a lower end side opposite an upper end side;
 - a passage (30) for a flow of liquid between each two of the lamellar structures (26, 24) wherein each passage has an inlet (28) and an outlet (45); and
 - filtering means (in the form of a baffled slot, 48, 30) in each of the passages for obstructing flow and retaining particulate matter;
- a reception chamber (defined by central region of the stack of filter plates 24) in the filter housing (14, 12) in fluid communication with the inlet (18) of the housing and the inlets (28) of the filter unit, and
- a discharge chamber (space surrounding the filter unit/stack of plates 24, 26) in the housing (12, 14) in fluid communication with the outlet (22) of the housing and filtered liquid discharged from the outlets (45) of the filter unit flowing across the discharge chamber towards

the outlet (22) of the housing (12, 14) and the housing having a top end and a bottom end, the inlet (18) being an opening in the bottom end thereof and further comprising:

- an inlet chamber (space bounded by inlet supply conduit and space outside the filter unit, 24, 26 prior to its central region/reception chamber) extending at the bottom end of the housing (12) and in fluid communication with the reception chamber via an outlet of the inlet chamber hermetically connected to the inlet of the filter housing, and
- mounting means (52, 56, 62) for mounting the filter unit vertically in the filter housing as in figs. 1 and 6 – 7 and cols. 3 – 6.

Cordua fails to disclose the inlet chamber having a sidewall provided with a plurality of slots sized and shaped for receiving and pre-filtering liquid to be filtered, whereby the liquid to be filtered enters the inlet chamber via the slots thereof and then flows across the inlet chamber and upwardly in the reception chamber of the filter housing.

11. von Nordenskjöld teaches a pre-filter having a filter housing (25) having an inlet and an outlet, a filter unit (stack of filter plates 26) in the housing, a reception chamber (space outside the outer peripheries of each filter plate 26) in the filter housing and further having an inlet chamber (space below the lowermost plate 26 bounded by the wall 24) having a sidewall provided with a plurality of slots (22) which can be sized and shaped for receiving and pre-filtering liquid to be filtered, whereby the liquid to be filtered enters the inlet chamber via the slots thereof and then flows across the inlet chamber and upwardly in the reception chamber of the filter housing (25), as in fig. 2 and cols. 3 – 6.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the pre-filter/device of Cordua, by adding the embodiment taught by von Nordenskjöld, in order to provide an improved pre-filter design which provides for pre-filtering or removal of larger sized debris which may be contained in the unfiltered liquid, and thereby provide a pre-filter device which can have longer filter lifespan.

12. Regarding claim 25, the claim language of claim 25 included a means- plus- function language (i.e. "mounting means for mounting the filter unit vertically in the housing") which extends itself to the broadest possible interpretation of the claim (in terms of equivalents), under 35 U.S. 112, 6th paragraph.

13. Regarding claim 26, Cordua, as modified by von Nordenskjöld, has taught the limitations of claim 25 above. Cordua further discloses the inlet (28) of each of the passages being located on the lower end side of the respective lamellar structures (26, 24) and the outlet (45) being located on the upper end side of the respective lamellar structures, whereby the flow of liquid in the passages is ascendant, as in figs. 1 and 6 – 7.

14. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cordua and von Nordenskjöld, as applied to claim 26 above, and further in view of Parker (280).

15. With respect to claim 27, Cordua, as modified by von Nordenskjöld, has taught the limitations of claim 26 above. Cordua, as modified by von Nordenskjöld, further teaches each of the lamellar structures in the form of hollow truncated structures (26, 24) having an outer peripheral edge and an inner peripheral edge (in the vicinity of 36 and opening 28) smaller than the outer peripheral edge.

Cordua, as modified by von Nordenskjöld, fails to teach the outer peripheral edge being the lower end side of the lamellar structure and the inner edge being the upper end side of the lamellar structure.

16. Parker teaches a similar filter unit to that of Cordua, the filter unit of Parker comprising superposed and spaced-apart inclined lamellar (80), and the lamellar structures (80) being in the form of hollow truncated structures having an outer peripheral edge (83) and an inner edge (defined by the collar 82) smaller than the outer peripheral edge (83), the outer peripheral edge being the lower end side of the lamellar structure (80) and the inner edge side being the upper end side, whereby the liquid enters the passage between two truncated structures in the lower filter unit from the outer peripheral edge thereof and flows upwardly towards the inner edge thereof, whereby the reception chamber being located all around the filter unit (70) and discharge chamber being in a centrally located zone of the filter unit, as in figs. 1 – 2 and in cols. 3 – 4.

It is considered obvious to one of ordinary skill in the art at the time of the invention to modify the filter unit of Cordua, as modified by von Nordenskjöld, by adding the embodiment

taught by Parker, in order to provide an alternative design for the filter unit which allows for easy dismantling and replacement of a particular plate/lamellar structure, as in col. 1 of Parker.

Response to Arguments and Amendments

17. Applicant's arguments with respect to claims 25 - 27 have been considered but are moot in view of the new grounds of rejection set forth above. **This action is non-final.**

Allowable Subject Matter and 35 U.S.C. 112 Rejection

18. Claims 3 - 4, 6 - 10 and 13, 18 and 20 - 24 contain allowable subject matter.

19. Claims 11 - 12 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. Claim 11 recites the limitation "truncated cone" in the last line of the claim, which lacks proper antecedent basis. Claim 12 depends on claim 11 and therefore suffers the same defects.

20. The following is a statement of reasons for the indication of allowable subject matter: none of the prior art presented above and those searched, has disclosed or rendered obvious a

pre-filter having the combination of limitations recited in claim 24 including the features of a lower and an upper filter units in the housing wherein both filter units comprises of superposed and spaced-apart inclined lamellar structures having all the limitations recited in lines 6 – 16 of the claim, and the lower filter unit having a discharge chamber located in a centrally located zone of the lower filter unit and the upper filter unit including a reception chamber located in a centrally located zone thereof and in fluid communication with the discharge chamber of the lower filter unit.

Conclusion

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne S. Ocampo whose telephone number is (703) 305-1039. The examiner can normally be reached on Mondays to Fridays from 8:30 A.M. to 4:30 P.M..

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker can be reached on (703) 308-0457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 09/815,857

Page 11

Art Unit: 1723

23. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

msd
M.S.O.

Joseph Drodge
JOSEPH DRODGE
PRIMARY EXAMINER